Integrating The Monorail

DESIGN GUIDELINES

DRAFT Monorail Transit System Design Guidelines

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City of Seattle

INTRODUCTION

What Are Design Guidelines?
Design guidelines intentionally do not prescribe specific design solutions; rather they set expectations for project proponents to meet in the design of new facilities. It is possible for a given design guideline to be met through any one of several design solutions. During the design review and permitting process, the City and project proponents jointly determine which design solution best meets the intent of the design guidelines overall. The design review and permitting processes both include opportunities for public review and input. Through this process, design guidelines ensure a consistent application of standards of design quality and performance while still allowing flexibility as the design progresses.

Inasmuch as the guidelines represent the broadest range of expectations, it is inevitable that some guidelines may appear to compete or conflict with one another. It is the user's responsibility to apply these general guidelines to specific locations and conditions, balancing expectations with project constraints and setting priorities as needed. Design guidelines do not function alone, but are a tool for capable professionals to use in assessing and ensuring design quality.

Purpose of Monorail Transit System Design Guidelines
The City of Seattle's monorail transit system design guidelines were developed to describe the City's urban design vision for monorail transit facilities and set the standards by which monorail transit facilities will be evaluated during the design and permitting process. The goal is it to ensure a superior design that is well integrated into the transportation system and the urban environment.

How the Monorail Transit System Design Guidelines Relate to Other Policies and Regulations
The monorail transit system design guidelines are part of the approval and permitting process that the City established after voters approved the creation of a city transportation authority, known as the Seattle Monorail Project (or "SMP,") with the power and authority to develop the Green Line project and plan for a citywide monorail transit system. The approval and permitting process includes:

- **Alignment Approval**: City Council approval of the horizontal and vertical alignment and locations of the monorail guideway, monorail transit stations, and monorail operations center;
- **Transit Way Approval**: City Council approval of an agreement granting non-exclusive use of certain City of Seattle streets and rights-of-way for the monorail, imposing certain conditions and mitigation requirements, and designation of those areas as a Monorail Transit Way;
- **Guideway Permits**: After approval of the alignment and Transit Way, the City's Director of Transportation is authorized to review and approve the design and final construction plans for the monorail guideway and related elements.
- **Station Permits**: After approval of the alignment and Transit Way, the City's Director of Planning and Development is authorized to review and approve the design and final construction plans for monorail transit stations, the monorail operations center, and related facilities.
- **Land Use Code and Street Use Code**: The City's Land Use Code and Street Use Code establish zoning, development regulations and design standards that are applied during guideway and station permitting.

- **Design Guidelines**: The Directors of Transportation and Planning and Development are authorized to impose reasonable conditions and waive certain development standards when necessary to achieve consistency with the monorail transit system design guidelines.
- **Design Review**: Monorail transit facilities are subject to review by the Monorail Review Panel (MRP) of the Seattle Design Commission. The MRP makes advisory recommendations to the Mayor, Council and Directors of Transportation and Planning and Development regarding design and planning issues.

Scope

The monorail transit system design guidelines address urban design and access issues for all monorail transit facilities, and for related improvements to streets and rights of way that are incorporated into the design and construction of the monorail transit system. Examples include:

- The elevated guideway and related columns/piers, emergency walkway, structural support elements such as C-bents, etc.
- Switches, turnbacks, and layover/holding tracks
- Systems structures such as power substations, etc.
- Individual stations and related public spaces, streetscape, and access improvements
- Areas underneath the guideway
- Other modifications and improvements to City streets and right-of-way

How the Guidelines Were Developed

The City has extensive experience developing and applying design guidelines for public and private projects beginning with the *City of Seattle Design Review Guidelines for Multifamily and Commercial Buildings* (October 1993). Neighborhood-specific design guidelines were subsequently developed and adopted.

In 2000 and 2001 the City developed design guidelines for the Link light rail project, which are being used to review and permit that project in much the same way the City expects to use design guidelines for the Monorail. In addition, SMP developed a set of design principles and criteria to provide guidance to their architects and contractor. The MRP identified important urban design and access issues as part of their review of alignment planning and preliminary design of the Green Line project. Lastly, the City's station area planning process, which has drawn heavily from adopted neighborhood plans, has also provided a wealth of knowledge applicable to urban design issues for the Monorail; particularly the Background Reports in framing the key issues for stations and corridor typologies. Each of these documents has been a source of inspiration for the format, scope, process, and substance of the design guidelines for the Monorail and we are indebted to the authors for their contribution.

Organization of the Design Guidelines

The guidelines are organized in two primary sections: Station guidelines and Corridor guidelines. Within each section, the guidelines are grouped into categories including:

- **Corridor:** Location and design of guideway and related elements; access and circulation near the guideway; and overall streetscape/public realm design
- **Stations**: Site planning and architecture; streetscape; and access and connections

Within each category are broad guidelines by topic, each followed by a list of specific examples of how the guideline objective might be met or applied. Examples of topics include:

- **Corridor topics:** Pier design and location; location and design of system elements; vehicular, bike, transit, and pedestrian access; landscaping; and more
- **Station topics:** Site and context responsiveness; height, bulk, and scale; exterior finishes and materials; landscaping; street improvements; drop-off/pick-up and taxi zones; and more

CORRIDOR & STATION TYPOLOGIES

In addition to broad station and corridor guidelines, there are guidelines by types of stations and types of context for the guideway. These typologies were developed for both stations and guideway in recognition that there is value in tailoring design expectations to the specifics of place. For example, even though certain basic design objectives apply to all stations, a station located downtown should have some differences from one located in an industrial area. Likewise, as a segment of the guideway moves through a neighborhood it may require different design treatment than the segment through the Seattle Center.

Each segment of the guideway corridor and each station—with three exceptions—is characterized by one of the typologies described below in recognition of how the character of each environment requires a different response. Accordingly, in addition to corridor-wide and station-wide design guidelines, guidelines have been developed to address each typology. This has the advantage of adding additional design direction tailored to specific environments. The three exceptions include the Seattle Center corridor and both bridges; the Ballard Bridge and West Seattle Bridge. These were deemed unique and therefore inappropriate for inclusion in a typology.

Corridor Typologies

Urban Core Corridor

- Guideway is flanked by dense development of a scale that exceeds the guideway itself
- Consistent street edge defined by buildings and plazas
- Parking consists of on-street parallel parking and private paid parking in surface lots or structured garages
- Full range of urban street furniture and fixtures
- Lots of signage primarily directed at pedestrian or driver at moderate speed—directional, traffic, informational, retail related
- Includes both street and pedestrian lighting
- Fairly wide sidewalks relative to rest of system
- Extensive pedestrian traffic

Transportation Corridor

- Guideway is prominent in terms of height, but similar in scale to the auto-oriented features of a strip arterial
- Street edge marked by setbacks and numerous driveways/access points
- Parking largely provided on-street and in on-site parking lots adjacent to businesses
- Development tends toward one-story buildings located back from the street edge
- Little or no existing sidewalks; where they exist there are many curb cuts
- Lots of large-scale signage including billboards and lit signs, typically at or toward the street edge
- Street lighting only—no pedestrian lighting
- Can include variations such as institutional (where flanking uses are large campus settings), and open space (adjacent to parks spaces…maybe a separate category??)
- Minimal pedestrian traffic

Neighborhood Corridor—Retail and Residential

- Two variations on a similar theme—in one the guideway is flanked by small scale retail/commercial uses; in the other it is flanked by multi-story residential
- Street characterized by pedestrian scale detailing, but modest heights
- On-street parking, structured parking, and some parking located behind businesses/housing
- Sidewalks of varying widths and conditions
- Lots of signage primarily directed at pedestrian or driver at moderate speed—directional, traffic, informational, retail-related
- Often includes both street and pedestrian lighting
- Moderate pedestrian traffic

Industrial Corridor

- Guideway may be prominent in terms of height, but similar to or exceeded by scale of industrial buildings and infrastructure (such as equipment sheds, trestles/tracks, grain elevators, etc.)
- Street edge marked by setbacks and numerous driveways/access points
- Parking largely provided on-street and in on-site parking lots adjacent to businesses
- Development tends toward one to two-story buildings located back from the street edge
- Little or no existing sidewalks; where they exist there are many curb cuts
- Signage is less than commercial strip but similar in scale—billboards
- Street lighting only—no pedestrian lighting
- Minimal pedestrian traffic

Seattle Center

- The Seattle Center segment is unique along the alignment. The guideway enters the campus through the Experience Music Project building, and runs through an active civic open space comprised of a variety of contexts including large scale buildings, amusement park rides, tree-lined allees and the large gathering space at the International Fountain.

Bridges/Waterways

- Bridges and waterways include the span across the water and the transition moving to and from the bridges that are part of the Monorail project. This occurs at two locations; across the Ship Canal between Ballard and Interbay, and across the West Seattle Bridge.

Station Typologies

Urban Core Station

- Station is situated within a dense urban core; surrounded by a mix of retail, office, civic, and residential uses, and is shaped by the architectural and functional (street and otherwise) character and context of the urban core
- Serves an existing vibrant/functioning urban core, station is secondary to the place itself
- Typically a "destination" station in the morning and "origin" in the evening (for commuters), plus all day long for intercity travel. Serves broad ridership: urban residents, commuters, shoppers, visitors, trips throughout the day, short and long
- Good connections to several modes of transit/transportation—metro bus, regional or private bus, light rail, commuter rail, airport, and ferry.
- 18-24 hour usage
- Amenities in station area are part of a larger downtown-wide system of amenities such as benches, retail carts, public art
- Access improvements build upon existing infrastructure and must fit into other downtown circulation systems
- May serve special functions such as access to sporting event venues, cultural centers/facilities, civic centers, or other regional facilities which require special design features

Town Center Station

- Serves a neighborhood commercial center, helps physically and functionally define the place (i.e. town center)
- Station is part of, but not the primary feature of, a mixed use area with uses equivalent to those identified in our urban villages and urban centers—commercial and retail focus
- Connections to several bus lines, possibly another transit mode.
- Primarily serves commuters and neighborhood residents and some visitors
- 18 hour usage
- Amenities in station area are key features of the town center—for instance a plaza with fountain, a green space, a copse of specimen trees
- Access improvements set the tone for pedestrian and non-SOV circulation in the station area—something for other systems/development to build from

Residential Village Center Station

- Serves a primarily residential neighborhood, takes cues from surrounding residential architecture and smaller scale development—tucked into neighborhood fabric
- Neighborhood service and small business focused
- Primarily serves neighborhood residents
- Amenities in station area are unobtrusive and serve the neighborhood
- Access improvements connect station area to neighborhood

Commuter Stop

- Station is the primary feature around which a few supporting uses are located that serve commuters, such as coffee bar, dry cleaners, post office, magazine stand, shoe repair. Proximity to employment is another characteristic of this station.

- Residential density may or may not be present at the outset but should be anticipated for the future.
- Typically an "origin" station in the mornings; destination in the evenings.
- Serves commuters and mode changers
- 12 hour usage
- Amenities in station area are focused on the commuter experience
- Access improvements focus on providing the easiest connection to the station

Multi-Modal Hub Station

- Located wherever several modes of transit intersect; may be within urban core or other primary transportation corridors
- Usually sited in densely developed areas
- Serves a wide variety of passengers including those who are regular users and those who are infrequent users
- 18-24 hour usage
- Amenities in station are focused on the traveler, but unlike commuter stop, may include a broader range of services and facilities for passengers traveling longer distances and/or with longer wait times between modes
- Access improvements focus on connecting modes to one another

DESIGN GUIDELINES FOR THE MONORAIL CORRIDOR

I. Guideway and Related Elements

A. Guideway

1. *Design the guideway as an elegant, graceful and timeless system of integrated elements that express the civic nature of the monorail.*
   - Design the guideway, piers, emergency walkways, rails, raceways and other components as a comprehensive, well-considered and related family of elements.
   - Integrate any elements that need to be attached to the guideway and piers, using all elements to contribute to a consistent design.
   - Let the design reflect the physical forces of nature and the strength and crafting of the materials used.
   - Create a design that is equal to the position of the Monorail as a regional landmark and that contributes to the function of the city and the identity of Seattle.

2. *Balance civic-scale of the system elements with the scale and proportion of the specific existing city fabric and topography along the corridor.*
   - Design the guideway and system elements to be compatible in scale with areas that have a fine-grained urban fabric and pedestrian-scale environment.
   - Protect views where possible, and maximize the opportunities to enhance vistas.
   - Pay special attention to design details and scale in those areas with historic or culturally significant context.

3. *Integrate the guideway into its context, minimizing visual impacts in the urban fabric, and taking advantage of the opportunities of each setting along the corridor.*
   - Provide a balance between the desire for a flat or gradual guideway profile and a guideway that responds to the topography and urban form of the city along its length.
   - Where curves are required, minimize the visual impacts of crossing streets.
   - Minimize bents and other special structures. Where bents are required, locate and design them to function as corridor or gateway-defining elements, responding to the scale and character of their context.
   - Transitions in guideway alignment, structure type, elevation and pier placement should be uniform, resulting in a visually appealing and consistent structure as viewed from adjoining neighborhoods and along the corridor.
   - To the extent possible, avoid transitions from one side of the street to the other. Where they are necessary, locate transitions where curves in the streets facilitate transition. Do not locate transitions at intersection.

4. *Make the Monorail system a positive addition to the streetscape through attention to scale, proportion and detailing of the system elements.*
   - Design the guideway and piers to respond to the function of the street and the character of the pedestrian environment.
   - Provide as consistent a pattern as possible with the system elements, coordinating with the pattern of intersections, streetlights and trees that give continuity to the streetscape. In detailed

location decisions, consider the location of system elements in coordination with building entrances, sidewalks, vehicular movements, property access, bus stop locations and bus shelters, on-street parking location, landscape element, lighting, signage, and other street furnishings.
- In areas where property has yet to develop, locate support structures with the least impact possible for future development.
- Piers and other support structures should meet the ground plane in a clean and clear fashion, highlighting the expression of the structural function and material characteristics of the element.
- Express the footprint of the supporting structures as an integral part of the detailing in the surrounding paving.
- In areas where pedestrians are in proximity to piers and other elements, increase the level of attention to detail in materials, level of craftsmanship and texture.

5. *Use a palette of high quality, durable materials for system elements appropriate to their function and their context.*
   - Choose materials and finishes that will retain an attractive character over time by weathering well. Anticipate weathering characteristics and of the material so that the passage of time will improve, rather than mar the character of the guideway elements.
   - Use Life Cycle Assessment data as part of the materials selection process.
   - Use local materials whenever possible.
   - Use low toxicity materials and minimize finish coatings where possible.

B. Pier Location and Design

1. *Create a consistent rhythm through pier location and design, balancing systemwide design objectives with responsiveness to local conditions.*
   - Locate the piers in a consistent manner, providing for visual legibility and safety.
   - Address the impact and scale of the piers, particularly on narrower streets and finer-grained street environments.

2. *Minimize impact to valued views and spaces*
   - Locate piers to minimize the effect on important view corridors
   - Locate piers respectfully in regard to adjacent buildings and open spaces

3. *Utilize details that enhance context and character*
   - Give particular design attention to piers that are in proximity to pedestrians.
   - Express the footprint of the supporting structures as an integral part of the detailing in the surrounding paving.
   - Recognizing that there will be impacts on pedestrian space when increased guideway height or offsets translates to larger piers, make trade-offs that best support neighborhood values and needs.
   - Emphasize human scale features, materials, textures and details in areas where pedestrians come into contact with system elements

C. Switches

1. *Design and locate switching structures to cause the least impact to adjacent uses and neighborhood character*
   - Locate switches to minimize impact on the surrounding area, and make every effort to locate them outside of downtown, neighborhood centers or residential areas.
   - Ensure that switches do not result in dark or undesirable spaces underneath them, detailing the underside as necessary with lighting, design treatments, or artwork to create safe and pleasant spaces.
   - Where switches are located close to stations, provide continuity of design between the station and switches through a similar architectural expression or detailing.
   - Seize opportunities to create amenities out of street level spaces created by switches, such as overhead weather protection, areas for portable vendors, future retail uses.

D. Operation Center(s)

1. *Design the operation center(s) to fit in the context it is sited, expressing the functions within in a manner that is also sensitive to adjacent uses.*
   - Articulate the function of the facility through its architecture, using materials and forms that are industrial in nature.
   - Draw upon the order and pattern of the trainyard as inspiration for creating a visually pleasing and organized open space, especially as it is viewed from adjacent properties, streets, or slopes.
   - Provide screening for utility areas.
   - Use landscaping to highlight entrances or other places where the public is welcome.
   - Ensure that yard lighting, noise, and dust do not impact adjacent uses.

E. Other System Elements

1. *Incorporate all elements of the Monorail system into the local context, without detracting from the character of the setting.*
   - Provide screening of ancillary structures, where appropriate, either through attractive fencing or landscaping, in order to contribute to an attractive streetscape.
   - Locate and screen any other accessory buildings or structures to be compatible with the localized context.

II. Access and Circulation Near the Guideway

A. Vehicular

1. *Ensure a safe environment*
   - Locate piers to allow emergency access.
   - Locate piers so that a safe environment is maintained for vehicles, pedestrians and bicycles.
   - Address sight line clearances, especially at driveways and intersections.
   - Protect vehicles from piers and vice versa.

2. *Allow for necessary vehicular movements*
   - Ensure the ability for freight to operate on industrial properties and to move through the City.
   - Address sight line clearances, especially at driveways and intersections.

3. *Be responsive to existing and potential uses*
   - Locate piers to maintain needed truck mobility along the corridor and at specific pier locations on industrial properties.
   - Locate piers to minimize impacts to visibility and access for business and uses along the corridor.
   - Balance parking needs with other competing uses, such as pedestrian space or landscaping.

B. Transit

1. *Design the guideway and system elements to support and, where possible, improve the visibility and viability of transit and intermodal connections.*
   - Locate system elements to make transit stops and connections to transit stops visible and convenient.
   - Maximize the potential of the guideway and system elements to support intermodal connections. For instance, the guideway could be designed to create weather-protected areas for transit stops or for pedestrian routes to transit stops.

C. Pedestrians

1. *Design the guideway and system elements to support and, where possible, improve the pedestrian environment.*
   - Ensure adequate space for pedestrians on sidewalks and pathways for current conditions and for likely future pedestrian movements.
   - Create a safe pedestrian environment, using the monorail system elements to improve pedestrian safety where possible. Provide consistent and predictable treatment of pedestrian crossings throughout the system to reinforce safe street crossing practices.
   - Make improvements to traffic signals and timing/phasing as needed, and add pedestrian safety devices at intersections where appropriate.
   - Ensure pedestrian access to building entrances, bus stop locations and bus shelters
   - Design the system elements creatively to enhance the pedestrian realm, for example, by creating protected or weather protected areas that serve as outdoor "rooms", or by using piers to protect pedestrians from traffic.

D. Bicycles

1. *Design the guideway and system elements to support and, where possible, improve the bicycle access.*
   - Ensure adequate space for bicycles on streets, bike lanes and pathways for current conditions and for likely future bicycle volumes.
   - Create a safe environment for cyclists, using the monorail system elements to improve safety where possible.
   - Make the most of any creative opportunities for the monorail corridor to contribute to dedicated bicycle lanes or paths.

III. Streetscape Design/Area Below the Guideway

A. Landscaping

1. *Use landscape elements generously throughout the Monorail corridor, integrating the guideway into its various contexts and recognizing that landscape design is critical to the Monorail's integration into its natural setting, its urban setting, and its success as a positive civic element for Seattle.*
   - Design landscaping that has an identity as part of the larger monorail corridor, but within that overall language responds to and enhances its context.
   - Maximize the planting potential of the available space, in accordance with City policy regarding tree selection and spacing; in other words, requiring trees wherever they can be planted without compromising function and safety along the corridor.
   - Provide low maintenance shrubs and/or groundcover along the corridor with emphasis on evergreen species or deciduous species with seasonal variation in leaf color and attractive branching habit to provide year round presence;
   - Plant landscape elements that are mature enough to integrate the guideway at the outset of the project (i.e. a minimum caliper tree).
   - Integrate with landscaping on adjacent private property, either existing or as required under development standards for future development.
   - Minimize the removal of existing significant trees and retain significant vegetation wherever possible, particularly where impacts are temporary such as removal of vegetation for construction staging. When distinctive or character-giving vegetation must be removed, it should be replaced with new plantings of a similar type and/or size as that removed.

2. *Utilize principles of sustainability in landscape design.*
   - Incorporate principles of sustainability into the landscape design and materials.
   - Consider native Northwest plants as a first choice to help create habitat and use drought tolerant plants as much as possible.

3. *Ensure long-term health and attractiveness of the landscape.*
   - Use landscape materials that are easily maintained, drought-tolerant, and can withstand local conditions, including an open corridor of primarily impermeable surfaces.
   - Provide supplemental water (by automatic or manual irrigation or by specific contract provisions for hand-watering) to ensure adequate care of newly installed material for a minimum of three (3) years after installation.

B. Public Art

1. *Incorporate an artistic approach or expression into the design of the guideway to fully take advantage of the opportunities for the guideway to assume a civic and sculptural form.*
   - In addition to the simple, elegant design of the guideway and system components, consider artistic expression in detailing, materials, lighting as appropriate. Especially consider art opportunities that can help reduce the scale of the system components in sensitive contexts.

2. *Incorporate art elements throughout the corridor that contribute to a larger sense of place and to the specific physical and cultural attributes of the context.*

C. Street Furniture and other Amenities

1. *Provide street furnishings along the corridor that are coordinated throughout the corridor, and appropriate to the needs of pedestrians within each corridor setting.*
   - Street furnishings are to be considered as part of the language of the guideway and system elements, coordinated as individual elements and compatible with the aesthetic of the system.
   - The system elements and street furnishings may be integrated, if appropriate, but should never appear to be added "afterthoughts" that detract from the simplicity and elegance of the system components.
   - Include seating, trash receptacles, street lights, paving materials, signage, landscaping as appropriate (some of these are also covered separately)

D. Spaces under the guideway

1. *Utilize the spaces under the guideway, where appropriate.*
   - In areas where pedestrians will be using the area under the guideway, design the space below the guideway as an attractive outdoor space, with attention given to the underside of the guideway, to maintainability, to personal safety, weather protection and an attractive pedestrian-scale character.

E. Lighting

1. *Utilize lighting along the corridor to create a safe environment, and where appropriate, to create a sense of place and for artistic expression.*
   - Design the lighting along the corridor to balance the system-wide character of lighting and the local conditions.
   - Take advantage of opportunities to add visual interest to the system elements through lighting, where appropriate, and incorporate lighting into the design vocabulary of the system.
   - Energy efficiency and sustainable principles are to be considered in the lighting design.
   - Use neighborhood goals to inform lighting differential – reinforcing gateways and protecting single-family residents from glare.
   - Take care to avoid glare for vehicles and for nearby businesses and residences, and use full cut-off light fixtures to reduce ambient light in night sky.
   - Limit accent lighting that creates ambient light to highly visible locations such as adjacent buildings of historic or architectural value.
   - Use Crime Prevention Through Environmental Design (CPTED) guidelines to establish visibility and lighting parameters.

F. Signage/Wayfinding

1. *Utilize the guideway and system elements as wayfinding elements.*
   - Take advantage of the visibility of the guideway to help people locate monorail and other transit stations.

2. *Incorporate additional signage and wayfinding for the monorail that is coordinated with other City signage systems.*
   - Coordinate all street and Monorail-related signage, and introduce interpretive signage or other wayfinding elements as desired.

- Provide sufficient signage and wayfinding so that people can locate public facilities and destinations along the corridor.

G. Utilities

1. *Coordinate the design of the vertical elements that will serve the corridor, including street lights, utility poles, and the piers.*
   - Where appropriate, have poles serve multiple uses in order to minimize visual clutter.
   - Take advantage of opportunities to incorporate sustainable water retention and storm drainage along the corridor.

Corridor Guidelines by Typology: Urban Core Corridor

Key Issues and Opportunities

- Careful integration of the monorail guideway and system elements into the fabric of the city's downtown
- Minimizing impacts to key streetscapes; open spaces and plazas; vistas/views; significant historic, civic, and cultural buildings; and overall character
- Maximizing the potential for the Monorail to play a significant role in creating an integrated transportation network/system with transit, light rail, and commuter trains
- Adding another dimension to the streetscape and overall street activity through pedestrian circulation at and above the street level, while not diminishing existing street level activity

Guideway and Related Elements

Guideway:

- The guideway and system element design must be compatible with the fine-grained scale of the urban fabric, paying careful attention to the quality of the pedestrian area and minimizing impacts on the existing streetscapes and buildings.
- Design system components with crisp, clean edges, containing mechanical and electrical systems within these forms to the extent possible.
- Consider reveals or shadow lines to lessen the perceived mass or depth of the guideway structure.
- Attention to detail, quality of materials and craftsmanship need to be of the highest caliber appropriate to Seattle's urban core.

Pier Design and Location:

- Create a legible rhythm of piers that relates to the grid of the blocks and streets.
- Locate piers to support the "zoning" of the pedestrian area into merchant zone, pedestrian through-route and an amenity zone at the street.

Switches and Other System Elements:

- Minimize the location of switches and other system elements in the urban core.
- When it is necessary to locate switches and other system elements in the urban core, use design to integrate elements into the urban fabric, providing screening where appropriate.

Access and Circulation Near the Guideway

- The pedestrian environment is critical to a vibrant downtown. The guideway and its components must be located so that adequate space is available for pedestrians, especially near bus stops. Balance needs for parking, bicycle lanes, pedestrian space and vehicle space that best supports the health of the urban core.

Streetscape, Landscape and Area Under the Guideway

- Streetscape quality is critical to integration of the monorail into the urban core. A full range of amenities, coordinated with the design of the system components, are necessary to create a welcoming pedestrian environment.
- Street trees are key to integrating the guideway into the urban environment because they are of the same scale as the monorail system. Design the landscape to soften the piers and guideway in perspective view down the monorail streets in the city center.
- Design the landscape to read also at the intimate pedestrian scale to ensure the highest quality urban environment.

Corridor Guidelines by Typology: Transportation Corridor

Key Issues and Opportunities

- The Monorail runs along several major arterials that must accommodate high volumes of through-traffic. In some cases, these arterial corridors also function as business frontage and to some extent, pedestrian connections. The Monorail design in these segments can respond to the scale of moving vehicles, and to larger topographic landforms. At the same time, the design must be sensitive to the localized conditions in order to support existing businesses and other uses along the corridor.
- There is an opportunity with the design of the Monorail to better support a pedestrian environment along some arterials. In these instances, the system should take advantage of opportunities to buffer pedestrians from fast moving traffic, and the opportunity to add signature landscape and sustainable storm water management.

Guideway and Related Elements

Guideway:

- Consider the appearance of the guideway at the scale appropriate to drivers as well as pedestrians, and make the guideway a positive contributor to the character and identity of the corridor in its setting.
- Allow for visibility and access to auto-oriented uses, and consider future flexibility for likely development patterns.
- Use the guideway design to assist in the gradual transition from auto-oriented areas to a more pedestrian-scale environment.

Pier Design and Location:

- Where multiple driveways cross the sidewalk area, locate piers to allow flexibility for future development.
- Where appropriate, locate columns to buffer pedestrians from arterial traffic.

Switches:

- Design switches with the same level of care as other system elements, integrating them into the larger grouping of elements. Where appropriate, use their presence as an opportunity to create weather-protected space, especially at transit stops.

Other System Elements:

- Integrate system elements in auto-oriented contexts in a manner that allows continuation of existing uses, and is supportive of future development patterns set out in neighborhood plans.

Access and Circulation Near the Guideway

- The segments of the corridor that are dominated by regional transportation movement must not inhibit that function. However, in those portions of the segment that will, over time, become more of a mix of pedestrian zones near arterial traffic, the guideway offers the potential to buffer pedestrians from the arterials. To the extent possible, use the location and design of the guideway and other elements to support the future potential of pedestrian comfort and safety along arterials.

Streetscape, Landscape and Area Under the Guideway

Design streetscape elements to be legible from vehicles and to support the pedestrian environment as appropriate. Utilize larger scale elements such as landscape and lighting to read at a larger scale. Add a finer scale of streetscape elements to support developing pedestrian environments.

Corridor Guidelines by Typology: Industrial Corridor

Key Issues and Opportunities

- The priority in industrial segments is maintaining and supporting the health of existing industrial uses. The piers should not impact freight movement, and should withstand proximity to truck movements.
- The level of amenity need not be as high in industrial areas, but safety for pedestrians and vehicles is important. Pedestrian safety issues should be addressed as local conditions require.

Guideway and Related Elements

Guideway:

- System elements should be simple, easy to maintain, and should minimize impact on industrial activities.

Pier Design and Location:

- Minimize impact on functionality of industrial uses such as truck access, loading and movement near piers.
- Protect piers from vehicles, and vice versa.

Switches:

- Switches are appropriate uses in industrial segments, governed by the same regulations as other industrial uses.

Operations Centers:

- Operations centers may only be located in Industrial segments. These centers should be good neighbors to adjacent uses in terms of appearance, access, noise and lighting.

Other System Elements:

- Any system elements located in industrial areas should minimize impacts on industrial activities.

Access and Circulation Near the Guideway

- Freight mobility and flexibility for industrial uses on private property are the highest priority for access. The design and location of the system elements should support pedestrian safety, and pedestrian safety devices should be added as required in order to support the co-existence of pedestrians and industrial activities.

Streetscape, Landscape and Area Under the Guideway

- Where appropriate in industrial area, design streetscape elements to be legible from passing vehicles and to support the pedestrian environment as appropriate. Utilize larger scale elements such as landscape and lighting to read at a larger scale.

Corridor Guidelines by Typology: Neighborhood Corridor

Key Issues and Opportunities

- Careful integration of the monorail guideway and system elements into the scale and fabric of neighborhoods along the corridor
- Minimizing impacts to key streetscapes; neighborhood businesses and residences, open spaces and plazas; vistas/views; significant historic, civic, and cultural buildings; and overall character
- Maximizing the potential for the Monorail to play a significant role in creating an integrated transportation network/system with transit, light rail, and commuter trains
- Adding another dimension to the streetscape and overall street activity through pedestrian circulation

Guideway and Related Elements

Guideway:

- The guideway and system element design must be compatible with the fine-grained scale of the neighborhood fabric. Ensuring compatibility is critical to supporting the pedestrian scale of neighborhood centers and their primary retail streets. Consider reveals or shadow lines to lessen the perceived mass or depth of the guideway structure.
- Attention to detail, quality of materials and craftsmanship should be of a high caliber in keeping with existing development and supportive of the character of development envisioned in applicable neighborhood plans.

Pier Design and Location:

- Locate columns to support the "zoning" of the pedestrian area into merchant zone, pedestrian through-route and an amenity zone at the street.

Switches:

- Make every effort to avoid locating switches in the neighborhood corridor.
- Where switches are necessary, design the switches to be integrated into the station and guideway as a whole. Consider using the switches to create weather-protected outdoor spaces, with finished surfaces the read as ceilings on the underside of the switch.

Other System Elements:

- Minimize the location of other system elements in the neighborhood corridor.
- When it is necessary to locate other system elements in the urban core, use design to integrate elements into the neighborhood fabric, providing screening where appropriate.

Access and Circulation Near the Guideway

- The pedestrian environment is critical to healthy neighborhood centers. The guideway and its components must be located so that adequate space is available for pedestrians, especially near bus stops. Balance needs for parking, bicycle lanes, pedestrian space and vehicle space that best supports the health of the neighborhood center.

Streetscape, Landscape and Area Under the Guideway

- Streetscape quality is critical to integration of the monorail into urban neighborhoods. A full range of amenities, coordinated with the design of the system components, are necessary to create a welcoming pedestrian environment.
- Street trees are key to integrating the guideway into the neighborhood corridor because they are of the same scale as the monorail system. Design the landscape to soften the piers and guideway in perspective view down the monorail streets in the neighborhood corridor.
- Design the landscape to read also at the intimate pedestrian scale to ensure the highest quality neighborhood environment.

Corridor Guidelines by Typology: Seattle Center

Key Issues and Opportunities

- Seattle's monorail originated with the design of the 1962 World's Fair. The design of the new guideway and system elements on the Seattle Center campus should reflect that optimistic spirit, with bright, clean, uplifting forms, elegantly integrating idealistic technology into everyday life.
- The International Fountain Mall is one of this region's most important outdoor spaces, and the quality of the design across the Mall is of critical importance to the character and function of the space.

Guideway and Related Elements

Guideway:

- As the new monorail passes through the Seattle Center campus, it should appear light and elegant with crisp forms silhouetted against the sky. The system elements should reflect the simple and graceful design and detailing of the Seattle Center's original architectural elements.
- As it passes through the International Fountain Mall, the curving linear form of the monorail should be disengaged from the rectilinear form of Mall, lifted above the buildings and allowed to fly free of

the grid on the ground. The monorail should appear as a graceful line above the landscape, in the sky. This disengagement can be achieved by lifting the alignment as high as possible above the ground, so that sky is visible below the monorail track in as many places as possible.

- The visual emphasis of the monorail guideway should be on the horizontal, but the monorail beam should be light and thin in appearance, utilizing changes in form or color to reduce the apparent depth of the beam.

Pier Design and Location:

- The piers that support the monorail should be slender, elegant, and simple in form, appearing to touch the ground lightly, with vertical articulation that further reduces their apparent width. Piers and guideway should be light in color.
- Great care should be taken in locating columns so as not to interrupt views into the International Fountain Mall from the Theater Commons, Founder's Court or the new outdoor space west of McCaw Hall. Important views can be framed or enhanced by column placement.
- The piers should be a background piece, essentially design neutral, able to fit with the variety of forms and site conditions to be encountered at Seattle Center. The shape of the piers should not create awkward relationships when adjacent to other objects.
- Optimize the trade-offs of the benefits of a higher guideway with the desire for slender piers.

Switches:

- Do not locate switches in any of the public open spaces of the Seattle Center campus. If switches are required in this segment, they must be located in service areas and designed so that the character of its context is not diminished.

Other System Elements:

- Minimize the location of other system elements on the Seattle Center campus.
- If other system elements are necessary on the Seattle Center grounds, locate them outside of pedestrian areas, and use landscape or other screening generously to preserve and enhance the campus.

Access and Circulation Near the Guideway

- The pedestrian environment is critical to a vibrant Seattle Center. The guideway and its components must be located so that adequate space is available for pedestrians, especially during events. The system must be located in order to allow required fire and emergency access on the grounds. Refer to the station area guidelines for access to and from the stations.

Streetscape, Landscape and Area Under the Guideway

- The Monorail will pass through a variety of contexts within the Seattle Center campus. The quality of the ground plane and landscape in the pedestrian areas of the campus is critical to the Seattle Center. Integrate the Monorail into the Seattle Center with generous landscaping and high quality materials, including paving.
- Save existing trees to the extent possible, and where removal is required, replacement is expected to be of similar size and quality.
- Consider the use of light, color and kinetic art to celebrate the movement of the monorail and mark important places along the route.

Corridor Guidelines by Typology: Bridges and Waterways

Key Issues and Opportunities

- The Monorail crosses the Ship Canal and the Duwamish River. These spans, and the transitions to and from the spans, should take advantage of design opportunities and view potential.
- The span across the Ship Canal has the potential to be a dramatic element linking Ballard and Interbay. The design direction of the bridge should be an artful reflection of the vision of the communities joined by the Monorail.

Guideway and Related Elements

Guideway:

- Transitions to and from bridges should be uniform in grade, alignment and form to result in a visually consistent and elegant structure.
- Make use of the potential drama of the bridge spans where appropriate.

Pier Design and Location:

- Design gradual transitions to and from the bridges with a legible rhythm of piers.

Access and Circulation Near the Guideway

- The location of the piers for the bridges and waterways should be located and designed to have the least possible impact on the adjacent vehicular and maritime uses.

Streetscape, Landscape and Area Under the Guideway

- Light, color and kinetic art can celebrate the movement of the monorail and mark important places along the route.
- Take care in designing areas of transition near the bridge, avoiding the creation of neglected spaces below the guideway.

DESIGN GUIDELINES FOR MONORAIL STATIONS

I. Site Planning and Architecture

A. Site and Context Responsiveness

1. Respond to site conditions and opportunities in the proportion, form, and scale of the station.

- Address specific site conditions and opportunities such as non-rectangular lots, location on prominent intersections, unusual topography, significant vegetation, and views or other natural features.
- Create a positive relationship with adjacent existing structures by referencing or linking the station through entryway placements, decorative elements and materials, or use of strong horizontal treatment at the height of surrounding buildings.
- Use the station walls and features to shape the public realm and streetfront in a way that enhances the pedestrian environment and street activity.
- Where applicable, stations sited on corner lots should be oriented to the corner and public street fronts, with service parking and vehicular access located away from the corner.
- Maximize use of natural daylight and orientation to sun.

B. Height, Bulk, and Scale

1. Provide a transition in height, bulk, and scale

- Stations should be sited and designed to provide as sensitive a transition as possible to nearby, less-intensive land use zones, with particular attention to zone edges.

C. Architectural Design and Fit with Program

1. Express the function and program of the station through station design elements, details, and massing

- Use station design elements, details, and massing to create a well-proportioned and unified form that both expresses the functions within and fully accommodates the architectural program.
- Design for multiple functions of the public spaces over time of day, week and annually.
- Exhibit a balance between the "elements of continuity"—expressing the station as one part of the Monorail system—and "elements of distinction"—lending uniqueness to each station as a reflection of its context.
- Encourage social and community interaction through the relationships between functions; seating edges adjacent to the pedestrian circulation; programming for community activities; artwork; and interactive media and video monitors.
- Maximize the transparency of stations as much as possible to activate the stations and related streetscape.
- Emphasize human scale features, elements, and details at the station and related pedestrian areas.

D. Visibility of Entrances

1. Ensure that station entrance(s) are visible and inviting from primary pedestrian routes and destinations, bus stops, and other public transportation facilities.

- Consider using landscaping, wayfinding elements, and/or special paving treatment to mark the entrance to the station.

- Where pedestrians are accessing the station from multiple directions, ensure there are visual cues to direct the pedestrian beyond the edge of the station to the actual entrance to the fare-paid zone.
- Ensure visible and accessible connections to the elevators and stairs leading pedestrians to the overhead platform, including connections to existing sidewalks (where they exist).

E. Exterior finishes and materials

1. *Use simple, easily maintained and well-crafted materials.*
   - Use quality materials that tolerate heavy use in high-traffic areas, age and weather well, are durable, and vandal resistant.
   - Develop a palette of finish materials that work together in a coherent and harmonious manner, relate to the station context, and exhibit human-scale at the street level. Include a variety of color and texture within the palette.

F. Systems Structures

1. *Transit Power Substations, Signal/Communications buildings, and other systems structures and equipment should be functionally but unobtrusively sited, seamlessly integrated into the design of the station and streetscape, and appropriately scaled and detailed to be an asset to the station and surrounding neighborhood.*
   - Site and design systems structures to be compatible with the overall station design, intended future uses of adjacent properties, and the neighborhood as a whole.
   - Consolidate system structures within the footprint and massing of the stationhouse as much as possible.
   - Wall surfaces should be pedestrian-oriented and human-scaled in terms of materials used, artwork, landscaping, screening, and other treatments.
   - Use systems buildings creatively to provide other amenities, such as a backdrop for bench seating, a place for artwork, or part of bicycle storage.

G. Station Amenities

1. *Include amenities at each station to facilitate use of the Monorail and accommodate the needs of passengers arriving or departing, and other uses of the public spaces.*
   - Adequate seating, both in and outside the fare paid zone
   - Pedestrian-scale lighting in all areas where passengers may be waiting or boarding the train
   - Public art
   - Phone (on or near platform) and/or security alerts
   - Waste receptacles (including cigarette receptacles at station entrances)
   - Clocks
   - Information display cases or kiosks including newspaper racks
   - Weather protection—canopies and windbreaks
   - Trees and landscaping (see detailed design guidelines)
   - Water and electrical power for use by potential street vendors

H. Station Landscaping

1. *Use landscaping to provide identity to the station and guideway, as an element of wayfinding, and to complement existing streetscape and/or street tree plantings adjacent to the station.*
   - As a first priority, provide trees for maximum benefit from landscaping. Where trees cannot be accommodated but planting is desired, provide low maintenance shrubs and/or groundcover.
   - Integrate with landscaping on adjacent private property, either existing or as required under development standards for future development.
   - Design station and street landscaping jointly, in order to create a landscape design that is compatible and greater than the sum of its parts.
   - Use landscape materials that are easily maintained and drought-tolerant, with an emphasis on evergreen species or deciduous species with seasonal variation in leaf color and attractive branching habit to provide year round presence.

I. Blank Walls

1. *All Stations: Avoid creating blank walls at stations; where blank walls are unavoidable, provide design treatment to increase pedestrian comfort and interest.*
   - Include wall surface treatment, street trees, drop lighting on buildings, benches, and planters to detail the wall to a human scale.

J. Overhead Weather Protection

1. *Provide overhead weather protection for both passengers and other pedestrians using the station area*.
   - Where possible, continue the weather protection already provided on nearby buildings.
   - When opaque material is used, the underside should be illuminated.
   - Design the weather protection to a height and depth that is a comfortable scale for pedestrians.

K. Fit with Potential Future Development

1. *Site and design the station and platform such that it enhances the viability of adjacent parcels for future development.*
   - Incorporate offsite functions and features adjacent to stations as appropriate, such as existing paths, open space, and landscaping.
   - Preserve development potential, sunlight, and street visibility giving serious consideration to the development parameters of adjacent developable property, especially the need for parking.

L. Sustainability

1. *Maximize environmental benefits and long-term investment benefits through sustainable practices and use of a "whole building" design approach.*
   - Reduce demands on potable water requirements.
   - Use porous pavement where appropriate.
   - Maximize quantity and quality of landscape, considering all surfaces as opportunities for vegetation to reduce urban heat island.
   - Consider native Northwest plants as a first choice to help create habitat and use drought tolerant plants as much as possible.
   - Site, orient and configure the stations to take advantage of daylighting, exterior views, and natural ventilation.

- Site the stations and design facades and roofs to respond to the sun. Consider distinct north, south, east, and west facades based on solar impacts, passive solar gain and control.
- Provide shading devices where appropriate.
- Use affordable renewable energy sources where appropriate.
- Use Life Cycle Assessment data as part of the materials selection process.
- Use local materials whenever possible.
- Use low toxicity materials and minimize finish coatings where possible.
- Use of wood certified as sustainable where possible.

II. Streetscape and Public Realm

A. Street improvements

1. Contribute to a high-quality street environment adjacent to Monorail facilities.

- Provide quality street improvements, furnishings, and other amenities that are complementary to, and supportive of, the Monorail station and neighborhood plans goals.
- Use the area beneath the guideway and/or platform as space to site and organize street furniture, signage, transit shelters, vending machines, and landscaping.
- Where applicable, coordinate the design and construction of these improvements with existing capital projects and plans to leverage the benefits provided by each project.

B. Open Space/Public Plazas

1. Provide open space and/or public plazas outside the fare-paid zone that are welcoming, comfortable, safe, and complementary to adjacent uses.

- Create inviting public open space at every station where there is opportunity to do so.
- Locate public spaces intended for high occupancy in areas that have sun access at the corresponding time of day when use is expected.
- Design spaces with careful attention to lighting, paving materials, sightlines, sun and wind orientation, and landscaping.
- Include public art sited within the spaces and/or develop the open spaces as artworks in themselves.
- Provide clear and graceful transitions between public spaces for all users and the fare-paid zone for Monorail passengers.
- Where applicable, coordinate design with other adjacent or nearby community gathering places or open space.

C. Street and Open Space Landscaping

1. Provide landscaping to complement existing streetscape and/or street tree plantings adjacent to the station.

- Maximize the planting potential of the available space, in accordance with City policy regarding tree selection, spacing, and care; in other words, requiring trees wherever they can be planted without compromising facility function and safety, and requiring large scale trees rather than small scale where it is feasible for them to successfully develop.
- Where trees cannot be accommodated but planting is desired to improve the safety and/or aesthetics of the facility, provide low maintenance shrubs and/or groundcover.
- Minimize the removal of existing landscaping wherever possible, particularly where impacts are temporary such as removal of vegetation for construction staging. When distinctive or character-

giving vegetation must be removed, it should be replaced with new plantings of a similar type and/or size as that removed.
- Use landscape materials that are easily maintained, drought-tolerant, and can withstand local conditions, including an open corridor of primarily impermeable surfaces

D. Public Art

1. Include public art that is sited in highly visible and prominent locations.
- Incorporate art into the functional elements of the station and/or streetscape.
- Consider artwork that thematically spans one or more stations, creating visual relationships between those stations.
- Develop artwork in collaboration with other entities such as local arts councils and community organizations.

E. Lighting

1. Illuminate the station and related street envelope and its activities to provide a safe and attractive environment.
- Incorporate a combination of lighting conditions including ambient, direct, and path lighting in the design of each station and related areas (plaza, crosswalks), the street itself, and the platform.
- Consider the use of light as art.
- Limit accent lighting that creates ambient light to bridge areas and other highly visible locations such as adjacent buildings of historic or architectural value.
- Use neighborhood goals to inform the lighting differential; such as reinforcing gateways through lighting and protecting single-family residents from glare.
- Use Crime Prevention Through Environmental Design (CPTED) guidelines to establish visibility and lighting parameters.

III. Access and Connections

A. Pedestrian Access and Circulation

1. Provide comfortable, safe, and functional pedestrian circulation to, in, and around stations.
- Ensure that circulation paths, gathering areas, and elevators/stairs/escalators are sized to accommodate expected ridership and other pedestrian traffic (based on peak ridership), including the flexibility to allow for reorganization in the future to accommodate greater/changed pedestrian activity. Pay particular attention to corners where pedestrian flows converge and people gather.
- Provide clear connections to the station from adjacent sidewalks and across streets to/from adjoining communities via safe and attractive crossings and waiting areas (corner or midblock).
- Provide consistent and predictable treatment of pedestrian crossings throughout the system to reinforce safe street crossing practices.
- Make improvements to traffic signals and timing/phasing as needed.
- Include different surface materials and/or a change in furnishings such as paving patterns, color, signage, landscaping, bollards, lighting or seating that extend across the street to mark pedestrian routes to differentiate pedestrian areas from driveways, and loading or service access and zones.

- Minimize conflicts between pedestrians, cyclists, and vehicles of all kinds at and around stations, including locating any service parking (for systems structures, substations) such that it does not conflict with or impede pedestrian and multi-modal access to the station.
- Provide connections to neighborhood trail systems where possible and applicable.

B. Bicycle Access and Parking/Storage

1. *Provide access to the station for cyclists and otherwise encourage cyclists to use the Monorail.*
   - Focus on connections from established/known bike routes, including improvements to facilitate safe bicycle movements
   - Provide bicycle parking and storage facilities in close proximity to station entrances that are secure, visible, and convenient while not in conflict with the primary flow of pedestrians.
   - Post trail information clearly at each station, alongside Monorail rules and procedures for bringing bicycles onto trains
   - Plan to accommodate anticipated future demand for bicycle parking either on- or off-site.

C. Transit Facilities and Connections

1. *Provide clear and safe connections for passengers transferring between Monorail and buses.*
   - Post information on bus routes and schedules alongside Monorail schedules and information to support multi-modal transportation.
   - Coordinate any relocation and design of bus stops with Monorail station design and general street improvements to provide attractive and convenient connections for passengers outside the ¼ mile walking distance to stations.

D. Drop-Off/Pick-Up Zones

1. *Provide drop-off/pick-up zones located conveniently to station entrance(s) without creating undue traffic and circulation impacts to adjacent uses.*
   - Direct drop-off activity to one or more clearly identified areas to preclude other drop-off activity occurring elsewhere in an ad hoc manner, and in order to disperse vehicular traffic and minimize disruption to traffic flow in and around the station area.

E. Traffic Circulation

1. *Traffic circulation around stations should be maintained for all users, balancing the needs of vehicles of all kinds—buses, trucks, cars, service vehicles, and emergency vehicles—with pedestrians and cyclists and the Monorail system requirements.*
   - Conflicts between vehicles of all kinds—buses, trucks, cars, light rail, and emergency vehicles—and pedestrians should be minimized, with clear demarcation of pedestrian zones and priority given to pedestrians at the intersections nearest each station.
   - Safety measures should be carefully considered and implemented in locations where vehicle, bicycle and pedestrian movements intersect.

F. Signage and Wayfinding

1. *Provide clear, coordinated, and appropriately scaled wayfinding and signage along principal pedestrian routes within a ½ mile of the station.*
   - Coordinate all street and Monorail-related signage, and introduce interpretive signage or other wayfinding elements as desired.

- Use signage to direct passengers to key destinations within the vicinity of each station.
- Use views of prominent landscape features, landforms, and/or manmade structures to orient pedestrians and enhance wayfinding; e.g. Elliott Bay, the Olympics, Salmon Bay, Delridge, Space Needle, and city skyline.

Station Guidelines by Typology: Urban Core Stations

Key Issues and Opportunities

- Careful integration of the monorail into the fabric of the city's downtown
- Minimizing impacts to key streetscapes; open spaces and plazas; vistas/views; significant historic, civic, and cultural buildings; and overall character
- Maximizing the potential for the Monorail to play a significant role in creating an integrated transportation network with transit, light rail, and commuter trains
- Adding another dimension to the streetscape and overall street activity through pedestrian circulation at and above the street level, while not diminishing existing street level activity
- Supporting future development adjacent to the station…

Site Planning and Architecture

Site and Context Responsiveness: Maintain a street edge that is consistent with the rest of the block.

Design Context and Fit with Program: Seek to integrate the station with adjacent development wherever possible, favoring an infill approach that minimizes the footprint of the station while still meeting functional needs.

Visibility of Entrances: Where there are opportunities to incorporate stations into adjacent development or jointly develop a station site, ensure clear visibility of station entrances with particular attention to differentiating the public station entrance(s) from private entrances.

Systems Structures: Where possible, incorporate systems structure and related service access into the stationhouse, adjacent development, or underground in order to preserve open space for pedestrian use, particularly at the station streetfront.

Station Amenities: Seize opportunities to take advantage of existing public amenities near stations as a way of leveraging additional facilities and services for passengers than would otherwise be provided.

Streetscape and Public Realm

Lighting/Urban Core: Select lighting fixtures, wayfinding systems, and street furniture from among those already in use in the downtown core in order to integrate the Monorail into the larger context of urban street furnishings.

Open Space/Public Plazas: Assess inventory of other nearby public plazas and design station plaza to complement, not duplicate, public open space needs and facilities.

Access and Connections

Drop-off/Pick-up Zones: Because competition for limited curb space requires priority usage of station streetfront for transit, dedicated zones for drop-off and pick-up should only be provided as space is available.

Station Guidelines by Typology: Town Center Stations

Key Issues and Opportunities

- Balancing the desire to maintain a "small town" or village atmosphere with the opportunity to add a broader mix of uses and higher densities with the advent of the Monorail.
- Ensuring that the Monorail does not overwhelm the town center in scale, massing, or character; but instead fits within existing cherished urban character, or sets a tone for future development that is high in quality and pedestrian-oriented.

Site Planning and Architecture

Site and Context Responsiveness: For new or emerging town centers, reinforce an orientation toward pedestrian-friendly and higher density development through the character of station design and creation of an urban street edge up to the sidewalk. Where the town center includes a "mixed" architectural character, selectively respond to existing character in order to build upon the best examples while not perpetuating the lesser ones. Build upon successful window proportions, entryway placements, decorative elements, and materials to continue an appropriate pattern.

Height, Bulk, and Scale: Consider additional refinements beyond required setbacks in transitions in height, bulk, and scale at zone edges in order to carefully integrate the Monorail with adjacent development. Use modulation, color, texture, entries, materials, cornice lines, or other features to break the station façade into sections and character consistent with the desired town center context and character.

Architectural Design and Fit with Program: Use station architecture to set a standard of quality and identity for new or still developing town centers. Include space for the development of retail or commercial uses serving passengers and community members wherever possible and consistent with neighborhood plan goals.

Visibility of Entrances: Ensure that the entrance is visible from all the directions that pedestrians are expected to approach the station from. In order to optimize access, the station may warrant more than one entrance based on pedestrian travel routes, size of blocks (and related walking distance length), and site configuration.

Station Amenities: Include a higher level of amenities for these stations given their prominence within a small commercial area and the probable lack of other public amenities; e.g. water fountain, restroom, clock.

Station as Gateway: Where appropriate and desired by the community, the station should serve as a "gateway" to the surrounding community. Use the height of the station architecture to create a "landmark" or identifiable feature for the neighborhood. Preserve views into the community at or

through the station. Use public art, lighting, distinctive materials, and other urban design features to establish the station as a gateway. Corner locations can be particularly effective as gateway opportunities.

Streetscape and Public Realm

Open Space: Seize opportunities to include public plaza/open space as part of the station program in order to contribute to the town center apart from the station's function as a transportation facility.

Access and Connections

Pedestrian Access and Circulation: Use station-related pedestrian access and circulation as an opportunity to support pedestrian activity at the street level as a priority. Assist in creating lively streetfronts through pedestrian activity to and from the station, that ultimately helps to create a larger pedestrian network of sidewalks, paths, crossings, and building entries. Incorporate walkways that encourage movement through the site to the surrounding area.

Station Guidelines by Typology: Residential Village Stations

Key Issues and Opportunities

- Not overwhelming the adjacent residential development with the scale and mass of the station, platform, and guideway
- Maintaining a safe and secure station in the absence of heavy pedestrian activity that is present in urban core or town center stations

Site Planning and Architecture

Site and Context Responsiveness: Pay particular attention to scale, mass, and materials of the station and related systems structures in order to be a "good neighbor" and provide a sensitive fit in with the residential context. Ensure that systems structures are sited such that impacts related to access, noise, and lighting are directed away from adjacent housing.

Streetscape and Public Realm

Lighting: Provide lighting adequate to ensure pedestrian/passenger safety without creating glare or spillover light into residential areas.

Landscaping: Consider landscaping that is more residential or domestic in design and/or plant materials in order to fit with adjacent residential development.

Station Guidelines by Typology: Commuter Stop Stations

Key Issues and Opportunities

- Accommodating peak crowds at commute times, ensuring pedestrian/passenger safety during periods of lower use

Site Planning and Architecture

Architectural Design and Fit with Program: Include space for the development of retail or commercial uses serving commuters wherever possible.

Amenities: Provide a range of amenities tailored to the needs of commuters; including overhead weather protection to accommodate peak loads of commuters, readerboards or other "realtime" information to provide commuters with up to date data on upcoming trains, and space onsite or for vendor carts providing commuter-related goods and services.

Access and Connections

Pedestrian Access and Circulation: Provide clear pedestrian paths to and from the station and major destination, including adequate space to accommodate surges of pedestrians during commute times. Consider adjusting crosswalk timing to extend crossing times as needed at these times.

Station Guidelines by Typology: Multi-modal Hub Stations

Key Issues and Opportunities

- Ensuring smooth transfers between transit modes, eliminating conflicts between pedestrians and vehicles/buses
- Accommodating multi-modal needs while still integrating the station within its context

Site Planning and Architecture

Visibility of Entrances: Ideally, entrances to each transit mode should be visible from the other in order to facilitate seamless pedestrian movement between transit modes. Where this is not possible, signage and wayfinding is critical to connecting people to modes and destinations (see below).

Station Amenities: Include a greater range of amenities suited to passengers transferring between transit modes and possibly traveling longer distances and/or experiencing wait times between modes. Amenities may include phones; vendor space for newspapers/magazines, coffee, shoe repair/shine, other personal services; computer hook-ups; lockers; extra seating; and restrooms. Provide continuous weather protection between transit modes.

Access and Connections

Pedestrian Access and Circulation: Ensure that paths are as clear and direct as possible from one mode to the next. Where passengers must walk longer distances and/or experience a change in grade, strive to make the walk as clear, interesting, and pleasant as possible in order to minimize the impression of inconvenience or confusion. Provide enough space to accommodate expected peak passenger loads and transfers.

Pick-up/Drop-off Zones: Anticipate a higher level of pick-up/drop-off activity at multi-modal stations and plan the station area accordingly. Ensure that these zones do not conflict with major pedestrian corridors in order to keep those areas as free-flowing as possible.

Wayfinding: Provide clear and coordinated wayfinding to and from each transit mode/station, including a higher level of information about trip planning and destinations than is provided at other stations. Provide information about all modes at each station/transit entry in order to ensure that passengers have the ability to know in advance when their connection can be made (before walking to the next mode).